

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 1, line 15, with the following rewritten paragraph:

-- The present invention targets a communications system having, for example, an object request broker (ORB) mechanism. The ORB is a mechanism for making a method or function call between computers, namely, nodes in a distributed computing environment, and is used in ~~one of standards of a~~ standard communications channel between distributed objects. This standard is an industry standard set by an object management group (OMG), and is adopted by a variety of vendors.--

Please replace the paragraph beginning on page 1, line 24, with the following rewritten paragraph:

-- The ORB is a method with which a client request is conveyed to an object, which object is made to perform an operation corresponding to the request, and returns a result of the operation to the client, ~~between the client and the object~~.--

Please replace the paragraph beginning on page 2, line 4, with the following rewritten paragraph:

-- Fig. 13 assumes that a personal computer (PC) 101 that requests a process, and a CORBA AP server 104a that executes the requested process, are connected via the Internet.--

Please replace the paragraph beginning on page 2, line 13, with the following rewritten paragraph:

-- Normally, a communication using IIOP (Internet Inter-ORB Protocol), which is a communications protocol between objects on TCP/IP and laid down by the OMG, is the most efficient communication between a PC on a client side and a CORBA application server. Even if a program executed by a client and ~~that~~one executed by a remote server are written in different languages, the client can communicate with the remote server.--

Please replace the paragraph beginning on page 3, line 5, with the following rewritten paragraph:

-- Fig. 13 assumes that the PC 101 on the client side requests the CORBA AP server 104a to execute a process corresponding to one session, that is, communications transactions. The transactions of one session are composed of, for example, four stages ((1) to (4)~~in this figure, Fig. 13~~), in each of which a communication for receiving a process request to the CORBA AP server 104a, and a reply to the request, becomes necessary. This communication is assumed to be intermittently made between the PC 101 and the CORBA AP server 104a in each of the stages.--

Please replace the paragraph beginning on page 4, line 10, with the following rewritten paragraph:

-- Thereafter, when a communication connection and process request (2) in the second stage is provided from the PC 101 to the relay Web server 102 via a connection 105b within the session on the client side, the relay Web server 102 again selects any of the plurality of different Web servers 103a to 103n, which can relay the communication to the CORBA AP server 104a; (103n in this case example), and provides the selected different Web server 103n with the request (2) via a connection 106b. The request (2) is then provided from the selected different Web server 103n to the CORBA AP server 104a.--

Please replace the paragraph beginning on page 5, line 10, with the following rewritten paragraph:

-- As described above, with the conventional CORBA communication method using the HTTP tunneling, a connection between a relay Web server and a different Web server at a stage preceding a CORBA AP server is released upon completion of a reply to a request from a client. Therefore, even a communication within the same session from the same client cannot be made via the same different Web server, and additional time to establish a connection is required for each communication. Furthermore, a communication for returning a reply must be distributed also on a CORBA AP server side, leading to degradation in response performance.--

Please replace the paragraph beginning on page 6, line 5, with the following rewritten paragraph:

-- A communication distribution controlling method according to a first preferred embodiment of the present invention is a communication distribution controlling method distributing one communication to any of a plurality of relay devices, which can relay the one communication, in correspondence with a connection request of the one communication within a series of communications from a client. With this method, a communication connection request is received from a client, whether or not a communication connection corresponding to a series of communications is established is ~~determined~~ according to an identifier written in the communication connection request, and the requested communication is connected to a particular relay device as a relay destination of an established communication connection, if the communication connection is established.--

Please replace the paragraph beginning on page 9, line 6, with the following rewritten paragraph:

-- Fig. 1 is a block diagram showing ~~the fundamental~~ functions of a communication distribution controlling method ~~according to the present invention. This figure is a block diagram showing the functions of a communication distribution controlling method~~ distributing one communication to any of a plurality of relay devices, which can relay the one communication, in correspondence with a connection request of the one communication within

a series of communications from a client that can be, for example, a series of communications required within one session.--

Please replace the paragraph beginning on page 9, line 17, with the following rewritten paragraph:

-- With the communication distribution controlling method according to one embodiment of the present invention, a communication connection request from a client is received in block 1; whether or not a communication connection corresponding to a series of communications is established ~~is determined~~ according to an identifier such as a session identifier, which identifier is written in the communication connection request, ~~in 2;~~ in block 2, and the requested communication is connected to a particular relay device as a relay destination of the established communication connection if the communication connection is established; in block 3.--

Please replace the paragraph beginning on page 12, line 6, with the following rewritten paragraph:

-- However, according to the present invention, the connection 16 between the relay Web server 12 and the different Web server 13a is maintained, by way of example, for a predetermined time period without being released even if the reply (1) is terminated. If the next request (2) is made during the predetermined time period, ~~also the communication for the~~ request (2) and the reply (2) isare also made via the same connection 16, ~~and besides;~~

Nevertheless, the communication between the relay Web server 12 and the CORBA AP server 14a ~~is~~are made via the different Web server 13a in all cases.--

Please replace the paragraph beginning on page 12, line 17, with the following rewritten paragraph:

-- Similarly, a communication for a request (3) and a reply (3), and ~~that~~one for a request (4) and a reply (4) are made between the relay Web server 12 and the CORBA AP server 14a via the connection 16 and the different Web server 13a.--

Please replace the paragraph beginning on page 15, line 2, with the following rewritten paragraph:

-- Fig. 5 is a flowchart showing the process of a communication management method in this preferred embodiment. This figure is a flowchart showing the process that is performed, for example, by the proxy 32a shown in Fig. 4, namely, ~~a flowchart showing the process performed in~~ correspondence with a request in accordance with the session on the client side, that is, a communication connection (and process) request.--

Please replace the paragraph beginning on page 15, line 10, with the following rewritten paragraph:

-- Once the process is started in Fig. 5, it is first determined in step S1 whether or not a session ID (identifier) is written in a request from the client side. This session ID is

intended to identify one session corresponding to a series of communications from the client side. As will be described later, for example, an IP address of a client ~~is~~can be used as the value of the identifier, and ~~the~~this value is written in URL or header information within a communication connection request. If it is determined that the session ID is not written in the request from the client side in step S1, a series of communications corresponding to one session is started in correspondence with the communication connection request. In step S2, a new session ID is set for this session. In step S3, a new connection 34a is established between the proxy 32a and, for example, the gateway 33a. In step S4, a communication is made with the gateway 33a. In step S5, the session ID that is newly set in step S2 is notified within the reply by which a process result from a CORBA AP server is returned to the client side. ~~Here, the~~The process is then terminated.--

Please replace the paragraph beginning on page 16, line 6, with the following rewritten paragraph:

-- If it is determined that the session ID is written in the request from the client side in step S1, the already established connection of the gateway corresponding to the session ID that is stored, for example, in a memory (table) within the proxy 32a, is searched in step S6. After the communication with the gateway is made in step S4, only a reply is returned in step S5, and the process is terminated. ~~This is because a new session ID is not set in this case.~~--

Please replace the paragraph beginning on page 16, line 15, with the following rewritten paragraph:

-- ~~Namely, in Fig. 5, if~~ If a communication connection request is the initial request, (for example, the request (1) from the PC-A 31a in Fig. 4), the operations in steps S2 and S3 are performed, and a session ID is notified to the PC-A 31a within the reply (1) in step S5. For the next communication connection request, that is, the request (2), the operation in step S6 is performed, but the operation for notifying a session ID in step S5 is not performed.--

Please replace the paragraph beginning on page 17, line 9, with the following rewritten paragraph:

-- Fig. 6 is a flowchart showing the process of a communication connection management method in this preferred embodiment. In Fig. 5, when a new communication connection to a gateway is established in correspondence with the initial communication connection request within one session, and a session ID is set, its contents are stored in a memory (table), not shown). At the same time, a timer (also not shown) is started, and its elapsed time is monitored.--

Please replace the paragraph beginning on page 17, line 18, with the following rewritten paragraph:

-- ~~Namely, in~~ In step S11 of Fig. 6, whether or not an access, that is, the next communication connection request within one session, is made during a predetermined time



period after the timer is started, which is determined, for example, by the proxy 32a. If ~~the~~this access is determined to be made, the operation in step S11 is continued.--

Please replace the paragraph beginning on page 17, line 25, with the following rewritten paragraph:

-- Or, if the access is determined not to be made during the predetermined time period, a set session ID is invalidated in step S12, and the established communication connection is released. The process is then terminated. ~~As the~~A predetermined time period, (for example, 30 minutes as a continuation time of one session, which is a de facto standard in the Internet industry,) can thus be set.--

Please replace the paragraph beginning on page 18, line 8, with the following rewritten paragraph:

-- Fig. 7 explains a communication method, for example, between the PC-A 31a and the proxy (server) 32a in Fig. 4. In Fig. 7, the initial communication connection request from a client side, which corresponds to the request (1) in Fig. 4, (namely, login as a connection establishment request is made), a reply corresponding to the reply (1), in which a session ID is added to a result of a process performed by a CORBA AP server, is returned from the proxy 32a. The second and subsequent communication connection requests from the client side, namely, the requests (2), (3), and (4) in Fig. 4, provide the session ID to the proxy 32a in

addition to the connection process request from the client side, and replies are respectively returned to the requests.--

Please replace the paragraph beginning on page 18, line 23, with the following rewritten paragraph:

-- In this preferred embodiment, asfor a method determining a request corresponding to one session that is executed by a client as described above, for example, a method determining the communication connection requests (1) through (4); (which are made by the PC-A 31a in Fig. 4,) to be requests corresponding to the same session, any of three methods such as a method using an IP address of a client as a session identifier, a method including session information within URL information, and a method including a session identifier within header information is~~can~~ be used.--

Please replace the paragraph beginning on page 19, line 9, with the following rewritten paragraph:

-- Fig. 8 explains a communication connection method when an IP address of a client is used as a session identifier. In this figure, a communication connection (and process) request using IIOP protocol from a client side; (for example, the client AP shown in Fig. 3,) is converted by the client OD into HTTP protocol, and the communication connection request after being converted is output to a proxy side in a form including URL, a header, and a body.--

Please replace the paragraph beginning on page 21, line 7, with the following rewritten paragraph:

-- A ~~table~~TABLE within the proxy stores, by way of example, for session numbers S1 through S3, a session identifier to be added to header information, for example, AAA corresponding to the session number S1, and a number (1) of a communication connection to a gateway, which is intended to transmit the communication corresponding to the session.--

Please replace the paragraph beginning on page 21, line 14, with the following rewritten paragraph:

-- The already stored session identifiers and connection numbers ~~are~~refer to identifiers of sessions whose communications have been started, and to numbers of connections established for the sessions, respectively.--

Please replace the paragraph beginning on page 22, line 14, with the following rewritten paragraph:

-- As explained with reference to Fig. 9, the session number S4, and the session ID ZZZ are set by the proxy in correspondence with this communication connection request. The newly set session ID is added to the header information, for example, within the reply (1) to the PC-A 31a in Fig. 4, and returned from the proxy 32a to the client side.--

Please replace the paragraph beginning on page 23, line 8, with the following rewritten paragraph:

-- Fig. 11 explains a communication method when a session ID is added to the URL. The method shown in Fig. 11 is almost similar to that in Fig. 9. However, there is a difference in a point that a session ID is added not to header information but to URL. In a similar manner as in Fig. 9, the URL does not include a session ID in the initial communication connection request. A communication connection request is transmitted to a gateway via an established communication connection (4) in correspondence with a session ID newly set by a proxy, for example, Z. The established session ID Z is added to the URL within the reply to the request, and transmitted to the client side. The set session ID such as Z is added to the URL in the second and subsequent communication connection requests, and transmitted to the proxy.--

Please replace the paragraph beginning on page 23, line 24, with the following rewritten paragraph:

-- The respective communication devices in the above described communications system; (for example, the relay Web server 12 shown in Fig. 2, the proxy 32a shown in Fig. 4, etc.) can be naturally implemented by a general computer system. Fig. 12 exemplifies the configuration of such a computer system. In this figure, a computer 51 is configured by a main body 52; and a memory 53.--

Please replace the paragraph beginning on page 24, line 6, with the following rewritten paragraph:

-- The memory 53 is a storage device such as a random access memory (RAM), a hard disk, a magnetic disk, etc. In such a memory 53, for example, the programs represented by the above-described flowcharts shown in Figs. 5 and 6, and a program relating to the present invention, are stored. The programs are executed by the main body 52, so that the communication distribution control according to the present invention is implemented.--

Please replace the paragraph beginning on page 24, line 20, with the following rewritten paragraph:

-- As the a portable storage medium 55, a storage medium in a variety of forms such as a CD-ROM, a floppy disk, an optical disk, a magneto-optical disk, etc. is available for use. The communication distribution control system according to the present invention can be also implemented by storing the above described programs onto such a portable storage medium, and by placing the potable storage medium 55 into the computer 51.--

Please replace the paragraph beginning on page 25, line 3, with the following rewritten paragraph:

-- The above provided description refers to the preferred embodiments ~~according to~~ of the present invention by focusing attention on the HTTP tunneling with which a client requests, via the Internet, a CORBA AP server to perform a process required for executing a

session. However, the present invention is not limited to these implementations, and is applicable to diverse communication methods as a matter of course.--